

**BEST AVAILABLE COPY**



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

46

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/541,426	04/03/00	KIM	8733.20102

LONG ALDRIDGE & NORMAN LLP  
701 PENNSYLVANIA AVENUE NW  
WASHINGTON DC 20004

MM71/1106

EXAMINER

NGUYEN, D

ART UNIT PAPER NUMBER

2871

DATE MAILED: 11/06/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/541,426

Applicant(s)

Kim et al.

Examiner

Dung Nguyen

Art Unit

2871



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Aug 23, 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☒ The proposed drawing correction filed on Aug 23, 2001 is: a) ☒ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

Art Unit: 2871

***Response to Amendment***

Applicant's amendment dated 08/23/2001 has been received and entered.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Drawings***

1. The drawings are objected to because the alignment layers (18) have not been shown in figure 3 which is a sectional view from figure 2. Correction is required.

***Claim Rejections - 35 USC § 102***

2. Claims 1-3, 5, 7-22 and newly added claims 29-31, 33, 35-50 stand rejected under 35 U.S.C. 102(e) as being anticipated by Woo et al., US Patent No. 6,067,140 , as stated in the previous office action.

Regarding the above claims, Applicants contend that Woo et al. fail to teach or suggest an electric field inducing window (amendment, paragraph bridging pages 7-8). The Examiner is not convinced by this argument since Woo et al. do disclose the electric field inducing window (130) as shown in figures 2A-2B. It should also be noted that Applicants do not clearly define the term "electric field inducing window"; therefore, for broadest reasonable interpretation, the electric field inducing window could be an element in the pixel which forming at the multi-domain

Art Unit: 2871

boundary. Therefore, Woo et al. do disclose a combination of elements including the electric field inducing window and a photo-alignment as set forth in the above claims.

Accordingly, the rejection of the above claims stand.

***Claim Rejections - 35 USC § 103***

3. Claims 27, 28 and newly added claims 55-56 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Woo et al., US Patent No. 6,067,140, as stated in the previous office action.

4. Claim 6 and newly added claims 34 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Woo et al., US Patent No. 6,067,140, in view of Applicant's submitted prior art, Koma et al., as stated in the previous office action.

Regarding claims 6, 27-28, 34 and 55-56, as noted above, Woo et al. do disclose a combination of elements including the electric field inducing window and a photo-alignment.

Therefore, such above claims would have been obvious.

5. Claims 4, 23-26 and newly added claims 32, 51-54 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Woo et al., US Patent No. 6,067,140, in view of Bos et al., US Patent No. 6,141,074, as stated in the previous office action.

Regarding claims 4, 23-26, 32 and 51-54, Applicants state that Bos et al. teach away from the claimed range (i.e., 1 degree to 5 degrees) (amendment, page 9). Again, as discussed during the interview (08/15/2001), the Examiner respectfully disagrees with the applicant's viewpoint.

Art Unit: 2871

In particular, Applicants appears to believe that the small pretilt angle range (e.g, 0.1 degree to 10 degrees) in Bos et al. is formed by rubbing method since Bose et al. disclose the “reverse rubbing” treatment (col. 9, lines 37-55). However, the term “reverse rubbing” treatment in the Bos et al. is including the method of forming the alignment by rubbing (col. 8., ln. 1-12). In other words, Bos et al. disclose it is difficult to get the small pretilt angle by using the method of rubbing. In addition, Bos et al. do disclose the alternative method to form an alignment layer having a small pretilt angle by using photolithography (i.e, using UV light) (col.15, lines 1-5).

Therefore, the combination of Woo et al. and Bos et al. would have been obvious to claims 4, 23-26, 32 and 51-54 .

### ***Response to Arguments***

6. Applicant's arguments filed on 08/23/2001 have been fully considered but they are not persuasive as noted above.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**


Art Unit: 2871

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Dung Nguyen whose telephone number is (703) 305-0423. The fax phone number for this Group is (703) 308-7722.

Any information of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-0956.

DN  
11/05/2001

  
William L. Sikes  
Supervisory Patent Examiner  
Group 2871